

# Notice of Allowability

Application No.

10/816,246

Examiner

Douglas N. Washburn

Applicant(s)

HARRIS ET AL.

Art Unit

2863

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1 April 2004.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 1 April 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 1 April 2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## DETAILED ACTION

### *Prior Art Cited*

1 Boyington et al. (US 6,175,812 B1) and (US 6,377,897) teaches a computer-implemented method and system for dynamic duration burn-in. A performance database is used for tracking burn-in test results of a plurality of ICs. Test criteria is determined against which the burn-in test results will be compared. The plurality of ICs are tested to determine a failure rate from burn-in. The failure rate is compared to the test criteria and the steps of stressing, testing and comparing are repeated until the failure rate fulfills the test criteria. Boyington fails to teach or suggest determining an actual burn-in temperature for an actual device based on the comparison of an actual and a theoretical process metric for a device. Further Boyington is silent regarding determining a difference between an actual and a theoretical process metric for a device and adjusting the baseline temperature if the difference exceeds a predetermined difference.

Yoshida (US 6,215,324) teaches a dynamic burn-in test apparatus testing a large number of multi-pin LSI chips. The dynamic burn-in test apparatus includes a thermostatic oven and a driving unit for applying the input signal to the input terminal of each DUT to apply a predetermined expected value to the output terminal of each DUT. The dynamic burn-in test equipment monitors a power supply current to detect a failure. Yoshida fails to teach or suggest determining an actual burn-in temperature for an actual device based on the comparison of an actual and a theoretical process metric for a device. Further Yoshida is silent regarding determining a difference between an actual and a theoretical process metric for a device and adjusting the baseline temperature if the difference exceeds a predetermined difference.

Kirihata (US 6,326,800) teaches a method and apparatus for providing a self-adjusting burn-in (BI) test to a device-under-test (DUT) by dynamically regulating critical BI test parameters. The method includes setting an initial set of BI operating test conditions and repeatedly adjusting BI operating test conditions while performing BI testing until a predetermined reliability target is achieved. The apparatus includes a test target, a tester, a reliability analyzer, and a BI controller. The number of fails is measured during BI, and the final number of fails after completion of the BI test is extrapolated (predicted). If the number of fails exceeds a stated reliability objective, the BI conditions specified by BI controller are modified. Kirihata fails to teach or suggest determining an actual burn-in temperature for an actual device based on the comparison of an actual and a theoretical process metric for a device. Further Kirihata is silent regarding determining a difference between an actual and a theoretical process metric for a device and adjusting the baseline temperature if the difference exceeds a predetermined difference.

***Allowable Subject Matter***

2 Claims 1-20 are allowed.

The following is an examiner's statement of reasons for allowance:

Claim 1 recites, in part, "comparing the process metric for the actual device and the theoretical process metric for the device; and determining an actual burn-in temperature for the actual device based on the comparison". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claims 2-9 depend from claim 1.

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Claim 10 recites, in part, "determining a difference between the process metric for the actual device and the theoretical process metric for the device; and adjusting the baseline temperature if the difference exceeds a predetermined difference". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claims 11-17 depend from claim 10.

Claim 18 recites, in part, "determining a difference between the process metric for the actual device and the theoretical process metric for the device; and adjusting the baseline temperature between ten and fifteen degrees Celsius if the difference exceeds approximately one hundred". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claims 19 and 20 depend from claim 18.

It is these limitations, which are not found, taught or suggested in the prior art of record, and are recited in the claimed combination that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas N. Washburn whose telephone number is (571) 272-2284. The examiner can normally be reached on Monday through Thursday 6:30 AM - 4:30 PM.

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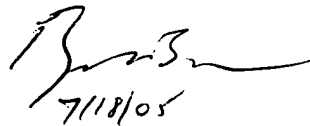
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DNW

**BRYAN BUI**  
**PRIMARY EXAMINER**



7/18/05